abcam

Product datasheet

Recombinant Human EpCAM protein (Tagged) (Biotin) ab269993

1 Image

Description

Product name	Recombinant Human EpCAM protein (Tagged) (Biotin)
Purity	>= 90 % SDS-PAGE.
Expression system	HEK 293 cells
Accession	P16422
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	QEECVCENYKLAVNCFVNNNRQCQCTSVGAQNTVICSKL AAKCLVMKAEM NGSKLGRRAKPEGALQNNDGLYDPDCDESGLFKAKQCN GTSMCWCVNTAG VRRTDKDTEITCSERVRTYWIIIELKHKAREKPYDSKSLRTA LQKEITTR YQLDPKFITSILYENNVITIDLVQNSSQKTQNDVDIADVAYYF EKDVKGE SLFHSKKMDLTVNGEQLDLDPGQTLIYYVDEKAPEFSMQ GLK
Predicted molecular weight	31 kDa including tags
Amino acids	24 to 265
Tags	His tag C-Terminus , Avi tag C-Terminus
Additional sequence information	NM_178135. Extracellular domain.
Conjugation	Biotin

Specifications

Our **Abpromise guarantee** covers the use of **ab269993** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE

Form	Liquid
Additional notes	Enzymatically biotin-labeled using Avi-tag™ technology

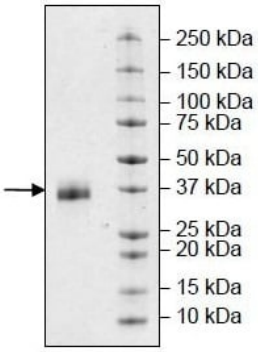
Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle. Store In the Dark. pH: 7.40 Constituents: 0.13% Sodium phosphate, 0.63% Sodium chloride, 0.02% Potassium chloride, 20% Glycerol (glycerin, glycerine)

General Info

Function	May act as a physical homophilic interaction molecule between intestinal epithelial cells (IECs) and intraepithelial lymphocytes (IELs) at the mucosal epithelium for providing immunological barrier as a first line of defense against mucosal infection. Plays a role in embryonic stem cells proliferation and differentiation. Up-regulates the expression of FABP5, MYC and cyclins A and E.
Tissue specificity	Highly and selectively expressed by undifferentiated rather than differentiated embryonic stem cells (ESC). Levels rapidly diminish as soon as ESC's differentiate (at protein levels). Expressed in almost all epithelial cell membranes but not on mesodermal or neural cell membranes. Found on the surface of adenocarcinoma.
Involvement in disease	Defects in EPCAM are the cause of diarrhea type 5 (DIAR5) [MIM:613217]. It is an intractable diarrhea of infancy characterized by villous atrophy and absence of inflammation, with intestinal epithelial cell dysplasia manifesting as focal epithelial tufts in the duodenum and jejunum. Defects in EPCAM are a cause of hereditary non-polyposis colorectal cancer type 8 (HNPCC8) [MIM:613244]. HNPCC is a disease associated with marked increase in cancer susceptibility. It is characterized by a familial predisposition to early-onset colorectal carcinoma (CRC) and extra-colonic tumors of the gastrointestinal, urological and female reproductive tracts. HNPCC is reported to be the most common form of inherited colorectal cancer in the Western world. Clinically, HNPCC is often divided into two subgroups. Type I is characterized by hereditary predisposition to colorectal cancer, a young age of onset, and carcinoma observed in the proximal colon. Type II is characterized by increased risk for cancers in certain tissues such as the uterus, ovary, breast, stomach, small intestine, skin, and larynx in addition to the colon. Diagnosis of classical HNPCC is based on the Amsterdam criteria: 3 or more relatives affected by colorectal cancer, one a first degree relative of the other two; 2 or more generation affected; 1 or more colorectal cancers presenting before 50 years of age; exclusion of hereditary polyposis syndromes. The term 'suspected HNPCC' or 'incomplete HNPCC' can be used to describe families who do not or only partially fulfill the Amsterdam criteria, but in whom a genetic basis for colon cancer is strongly suspected. Note=HNPCC8 results from heterozygous deletion of 3-prime exons of EPCAM and intergenic regions directly upstream of MSH2, resulting in transcriptional read-through and epigenetic silencing of MSH2 in tissues expressing EPCAM.
Sequence similarities	Belongs to the EPCAM family. Contains 1 thyroglobulin type-1 domain.
Post-translational modifications	Hyperglycosylated in carcinoma tissue as compared with autologous normal epithelia. Glycosylation at Asn-198 is crucial for protein stability.
Cellular localization	Lateral cell membrane. Cell junction > tight junction. Co-localizes with CLDN7 at the lateral cell membrane and tight junction.

Images



SDS-PAGE - (ab269993)

SDS-PAGE anlysis of ab269993 (3 µg) on a 4-20% gel with Coomassies staining.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors